

**[Name of Document] ABSTRACT**

The present invention provides a fuel cell optimum operating point tracking system capable of ensuring optimum operation of a fuel cell, by detecting the optimum operation voltage of the fuel cell taking not only temperature dependence of the output characteristics thereof, but also chemical reactions into consideration. The fuel cell optimum operating point tracking system is configured so as to vary a voltage of a fuel cell (1) output upon activation of a power source device (2) up to as high as a maximum voltage for the maximum power point tracking control by the fuel cell output voltage variation command unit (11), to measure the power state using a fuel cell output power measuring unit (12), to monitor the output power measured by the fuel cell output power measuring unit using a fuel cell maximum power point judging unit (13) to thereby judge the maximum power point of the output voltage of the fuel cell, and to track an optimum operating point through maximum power monitoring to thereby keep the power source operation constant at a stable condition using an optimum operating point variation command unit (15), and additionally giving a minimal voltage change at around the current operating voltage value.

**[Chosen drawing] Fig.1**